

APPLICATION
FOR
UNITED STATES OF AMERICA

SPECIFICATION

TO ALL WHOM IT MAY CONCERN:

Be it known that I,

Antonio FONTANA
Italian citizen
of CARPI - ITALY

have invented certain improvements in

“CONTAINER FOR PACKAGING FLUID OR PASTY PRODUCTS,
PARTICULARLY COSMETIC PRODUCTS, MEDICINAL PRODUCTS,
AND THE LIKE”

of which the following description in connection with the accompanying drawings is a specification, like reference characters on the drawings indicating like parts in the several figures.

BACKGROUND OF THE INVENTION

The present invention relates to a container for packaging fluid or pasty products, particularly cosmetic products, medicinal products, and the like.

Containers for packaging cosmetic or medicinal products are known which are constituted by a bottle provided with a dosage dispenser and closed by a removable cap.

Known containers are generally provided with seals that ensure the integrity of the products packaged therein until they are opened for the first time by a user.

Known seals, for example, are constituted by external rings, bands or tabs that temporarily couple the cap to the bottle and can be broken and/or removed for the first opening of said containers.

After the first opening, the residues of the broken and/or removed seals remain on the bottle and/or on the cap and are constituted for example by rings for the coupling of the bands, by annular elements and/or by the torn flaps of the bands or tabs.

The residues of the seals are exposed to the outside environment and are a seat of accumulation of dirt and of any losses of product, which form deposits, which in addition to making any subsequent closure and/or opening of the containers unpleasantly difficult may also contaminate the products contained therein.

Moreover, known containers are provided with seals that give them an unpleasantly heterogeneous and discontinuous appearance both before and after their first opening; this hinders the free styling and customization of the containers.

This last drawback is particularly felt in the field of cosmetic products, where even the design of the containers in which the products are packaged follows the changing trends of fashion and influences the choices of

consumers.

SUMMARY OF THE INVENTION

The aim of the present invention is to eliminate the drawbacks mentioned above, by providing a container for packaging fluid or pasty products, particularly cosmetic products, medicinal products and the like, that allows to ensure the integrity of the products packaged therein until it is opened for the first time and to preserve the products against contaminations after subsequent openings and closures.

Within this aim, an object of the present invention is to provide a container whose appearance can be uniform, continuous and compact and is susceptible of styling and customizations chosen with greater creative freedom in order to meet the changeable trends of fashion and satisfy the taste of consumers.

Another object of the present invention is to provide a container that is simple, relatively easy to provide in practice, safe in use, effective in operation, and has a relatively low cost.

This aim and these and other objects that will become better apparent hereinafter are achieved by the present container for packaging fluid or pasty products, particularly cosmetic products, medicinal products and the like, which comprises a hollow body for containing fluid or pasty products, which is provided with a mouth for the passage of the products, and a cap, which is detachably associable with the body in order to cover the mouth, characterized in that it comprises a closure for sealing the mouth, which is jointly monolithically and detachably associated therewith by way of temporary coupling means, a seat for accommodating the closure, which is formed inside said cap, and means for connecting the closure to the seat, which are suitable to prevent the rotation or sliding with respect to each other of the closure and the seat or both, the closure being disengageable from the mouth and being accommodatable monolithically in the seat by the first removal of the cap from the hollow containment body.

BRIEF DESCRIPTION OF THE DRAWINGS

Further characteristics and advantages of the present invention will become better apparent from the following detailed description of a preferred but not exclusive embodiment of a container for packaging fluid or
5 pasty products, particularly cosmetic products, medicinal products and the like, illustrated by way of non-limitative example in the accompanying drawings, wherein:

Figure 1 is an exploded schematic sectional view of a container according to the invention;

10 Figure 2 is a schematic sectional view of the container according to the invention in the assembled closed configuration;

Figure 3 is a schematic sectional view of the container according to the invention in the assembled open configuration.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

15 With reference to the figures, the reference numeral 1 generally designates a container for packaging fluid or pasty products, particularly cosmetic products, medicinal products and the like.

The container 1 comprises a hollow body 2 for containing the products, a dispenser 3, which is formed at one end of the body 2 and continues with a
20 neck 4 at the top of which there is a mouth 5 for the passage of the products, and a cap 6, which is detachably associable with the body 2 in order to cover the mouth 5.

The container 1 further comprises: a closure 7 for sealing the mouth 5, which is jointly, monolithically and detachably associated therewith by way
25 of temporary coupling means 8; a seat 9, formed within the cap 6, for accommodating the closure 7; and means 10 for connecting the closure 7 to the seat 9, which are suitable to prevent the rotation or the sliding, or both, with respect to each other of the closure and the seat.

The first removal of the cap 6 from the body 2 is suitable to disengage the
30 closure 7 from the mouth 5, the closure 7 remaining jointly, monolithically

accommodated within the seat 9.

In the illustrated embodiment, the body 2 and the dispenser 3 are constituted by two mutually separate parts that can be mutually coupled; the body 2 has an end that is closed by a bottom 11 and an opposite end that is provided with an opening 12 in which it is possible to insert a base portion 13 of the dispenser 3.

Anchoring means are formed between the body 2 and the dispenser 3 and are constituted, for example, by interlocking means such as an annular groove 14 that is formed in the internal walls of the body 2 and can be coupled to a complementary annular raised portion 15 that is formed on the outer lateral surface of the base portion 13.

As an alternative, the means for mutually anchoring the dispenser 3 and the body 2 can be constituted by a thermal bonding or ultrasound bonding.

The coupling of the dispenser 3 and of the body 2 occurs after the insertion therein of the products to be packaged.

In an alternative embodiment, not shown, the dispenser 3 is formed monolithically with an end of the body 2, with which it is monolithic; in this case, the end of the body 2 that lies opposite the dispenser 3 is temporarily opened to introduce the products to be packaged and can then be closed for example by heat-sealing if the body 2 is made of thermoplastic material.

The means 8 for temporary coupling between the closure 7 and the mouth 5 can be constituted, for example, by a breakable annular portion 16 that connects the base of the closure 7 jointly, monolithically to the perimetric area that delimits the mouth 5; along the annular portion 16 it is possible to form prefracture or prescoring lines that are suitable to facilitate its breakage.

The seat 9 is formed by the internal cavity of a cup 17, which protrudes into the cap 6 and can be fitted substantially snugly over the closure 7.

The cup 17 protrudes downward with a tubular tab 18, which can be fitted hermetically on the top 4a of the neck 4 of the dispenser 3; the tab 18

is advantageously flared in order to adhere to the walls of the top 4a of the neck 4, which are teat-shaped.

The connection means 10 that couple the closure 7 to the seat 9 are constituted by interlocking elements, for example such as an annular slot 19 that is formed in the walls that delimit internally the seat 9 and a complementary annular ridge 20 that is formed so as to protrude on the outer lateral walls of the closure 7.

In a possible alternative embodiment, the connection means 10 are constituted by a plurality of slots and complementary ridges or knurled regions formed on the outer lateral surface of the closure 7 and on the inner lateral surface of the seat 9; in another alternative embodiment, the connection means 10 can be of the type of a side-fit and/or interference coupling.

Means 21, for example of the screw type, for temporarily fixing the cap 6 and the body 2 to each other are formed between the cap and the body.

A hood 22 is formed inside the cap, contains the cup 17, and can be fitted over the neck 4 of the dispenser 3; the temporary fixing means 21 are formed between the internal walls of the hood 22 and the external walls of the neck 4.

Packaging occurs by introducing the products in the body 2 through its opening 12, into which the base portion 13 of the dispenser 3 previously assembled by pressing to the cap 6 is then inserted.

The closure 7 is rigidly coupled to the mouth 5, which it closes hermetically, and is inserted in the seat 9 formed in the cup 17, while the tab 18 wraps snugly around the top 4a of the neck 4.

During the mutual rotation of the cap 6 and the body 2 for the first opening of the container 1, the closure 7, rigidly coupled to the seat 9 (cup 17), is turned together with said cap, breaking the annular portion 16.

The closure 7 is thus disengaged from the mouth 5 and remains jointly inserted in the seat 9 (Figure 3).

After the first opening, the cap 6 allows to reclose and reopen the container 1 several times; the hood 22 screws on and off with respect to the neck 4, while the tab 18 covers hermetically the top 4a of the neck 4, at the same time preventing accidental losses of the packaged products and infiltrations of contaminants into the body 2.

In practice it has been found that the described invention achieves the intended aim and objects, i.e., it provides a container that allows to ensure the integrity of the products packaged therein both before its initial opening and during any subsequent opening and closure operations and has a structure that has a continuous and compact appearance that is susceptible of customization and styling.

The closure for sealing the mouth for the passage of the products in fact remains inside the covering cap, which is instead integrated with the product containment body.

The tightness of the products is ensured both by the sealing closure and by the tubular tab that can be fitted snugly on the neck of the dispenser.

The invention thus conceived is susceptible of numerous modifications and variations, all of which are within the scope of the appended claims.

All the details may further be replaced with other technically equivalent ones.

In practice, the materials used, as well as the shapes and the dimensions, may be any according to requirements without thereby abandoning the scope of the protection of the appended claims.

The disclosures in Italian Patent Application No. MO2002A000204 from which this application claims priority are incorporated herein by reference.